

Wisconsin Entomological Society

Newsletter

Volume 33, Number 2

June 2006

Saturday, July 1:

Madison Butterfly Count

Our 16th annual count! The leaders will be Karl and Dorothy Legler. Each summer butterfly enthusiasts all over North America participate in a census of butterfly species. Each count is conducted at several sites within a 15 mile diameter circle and the same circle is surveyed each year. These censuses help to monitor the health of our butterfly populations and the results of nearly 500 North

SUMMER 2006 INSECT FIELD TRIPS

by the Madison Audubon Society

Please join us on these trips.

NOTE: These are not collecting trips.

Many are marked with striking blue patterns. On this joint trip with the Wisconsin Wetlands Association we will meet at the MacKenzie Environmental Center for a 30 minute Powerpoint Presentation on Dragonflies and Damselflies by Mike Reese. Then we will go to the nearby west section

of Rocky Run Creek Fishery Area in Columbia County for a 2½-hour morning walk. We will observe dragonflies and damselflies and learn about the identification, biology, behavior, beauty, and lifestyle of the various species we encounter. The leader will be Mike Reese. Mike has an excellent website devoted to butterflies and damselflies of Wisconsin <http://www.wisconsinbutterflies.org> and he took most of the photographs for the new book *Damselflies of the North Woods*.

Bring binoculars if you have them (close-focusing ones work best) or just get close! It's best to wear long pants and a hat for protection from the sun. Bring mosquito repellent for the shady areas.

Meet at 9:00 A.M. at MacKenzie Environmental Center in Columbia County. From Madison go north on Highway 51. In Poynette turn right onto Q and CS and go east for nearly 2 miles. Turn right (south) into the Center. Stop at the Spruce-lined main parking lot on the right. Call Mike Reese at (920) 787-2341 (Waukoma) or e-mail mikereese@wisconsinbutterflies.org only if you have questions about the field trip. *

In This Issue...

Summer 2006 Field Trips

Page 1

Insect Books and Websites

Mystery Insect Answer

Rare Bumblebee

Page 2

News From the Insect Diagnostic Lab

Page 3

Do Dragonflies Migrate?

Hurrah for the Inner Life

Page 4

Beauties of the Evening

Pages 5

Ant-Plant Symbionts in Wisconsin Woods

Page 6

Is It Praying or Preying?

Page 7

Nature's Defense

Page 8

American counts are published in an annual report. Last year on the Madison census 17 people in three groups found 720 butterflies of 39 species. If you can identify butterflies, or can help spot butterflies, or just want to see and learn about butterflies, join us on this count/field-trip. Observe with eyes or close-focusing binoculars. Dress for protection from the heat and sun; a hat is recommended. The North American Butterfly Association requires a \$3.00 fee from each participant to cover publishing costs.

Meet at the parking lot for the Grady Tract in the UW Arboretum at 9:00 A.M. We will count until about noon.

Directions: Heading west on the Beltline (Hwy 12), take the Seminole Highway exit and then turn left (south) on Seminole Highway driving across the bridge over the Beltline turning immediately into the parking lot for the Grady Tract. If you have a question about the butterfly count call the leader, Karl Legler, at (608) 643-4926 (Sauk City).

Saturday, July 8:

Dragonflies and Damselflies of Rocky Run (West)

Damselflies are smaller, more slender, relatives of dragonflies.

The Wisconsin Entomological Society Newsletter is published three times a year, at irregular intervals. It is provided to encourage and facilitate the exchange of information by the membership, and to keep the members informed of the activities of the organization. Members are strongly encouraged to contribute items for inclusion in the newsletter. Please send all news items, notes, new or interesting insect records, season summaries, and research requests to the editor:

Janice Stiefel, 2125 Grove Road, Bailey's Harbor, WI 54202, (920) 839-9796, e-mail: jstiefel@itol.com

NOTE: Please report any address changes to Les Ferge, 7119 Hubbard Ave., Middleton, WI 53562, e-mail: ferge@netzero.net

INSECT BOOKS AND WEBSITES

Submitted by Andrew Khitsun

As butterfly fans may already know, new book was published recently — *Butterflies of the Great Lakes Region* by M. & J. Douglas, covering not only Wisconsin, but the entire area around the Great Lakes.

For you beetle enthusiasts, one group of coleoptera got covered extensively in the last few years — tiger beetles. The titles currently available are:

Catalogue of the Tiger Beetles of Canada and the United States

by R. Freitag

Tiger Beetles of Alberta: Killers on the Clay, Stalkers on the Sand

by J. Acorn

Tiger Beetles: A Field Guide and Identification Manual for Florida and Eastern US

by P. Choate

Northeastern Tiger Beetles: A Field Guide to Tiger Beetles of New England and Eastern Canada

by J. Leonard & R. Bel

Tiger Beetles: The Evolution, Ecology and Diversity of the Cicindelids

by D. Pearson & A. Vogler

A Field Guide to the Tiger Beetles of the United States and Canada

by D. Pearson

If you don't know which book to choose, I suggest heading to a store like Barnes & Noble and ordering several titles through them. When they get them, you can choose the one you like. They don't mind you buying just one of them (or none at all) and just put the rest of them on their shelves where they usually quickly sell them.

Websitewise, an interesting group of sites is maintained by Bill Oehlke and his associates. The main site (unfortunately, by subscription only) is at:

<http://www.silkmoths.bizland.com/indexos.htm> and is supposed to feature the majority of the *Saturniidae of the world* and their caterpillars in photos of stunning quality and detail. The second site (also by subscription) is called *Caterpillars Too!*

<http://www.silkmoths.bizland.com/ButterflyIntro.htm>

But you can see affiliated sites for free: *Sphingidae of Americas* at:

<http://www.silkmoths.bizland.com/danjansphinx.htm>

Sphingidae of the United States at:

<http://www.silkmoths.bizland.com/usatable.htm>

The Thibaud Decaens Saturniidae collection at:

<http://www.insectcompany.com/silkmoth/thibaudindex.htm>

The Kirby Wolfe Saturniidae collection at

<http://www.insectcompany.com/silkmoth/kirbywolfe.htm>

Noctuidae of genus Catocala at

<http://www.huffmantaxidermy.net/oehlke/catocala.html>

Answer to MARCH 2006 MYSTERY INSECT

There were three correct answers as follows:



**Poplar Borer Beetle
(*Saperda calcarata*)**

Gene Drecktrah, Oshkosh, WI—“Mystery insect = the Poplar Borer (*Saperda calcarata* Say), Coleoptera: Cerambycidae. Cheers and have a good one.”

Ron Huber, Minneapolis, MN—“The WES Newsletter just arrived today—another good issue! The mystery insect is obviously a cerambycid. The antennae are longer than the body so it is apparently subfamily Lamiinae, and the very sharply pointed elytral apices and overall color suggest *Saperda calcarata* (Poplar Borer). I seem to recall catching one about 30 years ago, before we left for Kansas. Am I close? We enjoy these quizzes!”

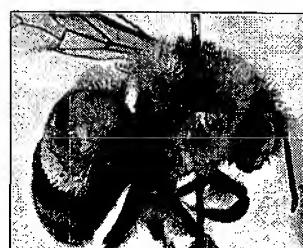
Herbert J. Grimek, Madison, WI: “The mystery insect pictured in the March 2006 issue of the Wisconsin Entomological Society Newsletter appears to be *Saperda calcarata*.”

NOTE: Larvae of this beetle oftentimes feed on unhealthy trees or trees damaged by insects. They attack various Cottonwoods, Poplars, and Willows throughout most of the U.S. and work in the trunks and larger limbs. To see this photo in color, go to:

<http://bugguide.net/node/view/36089>

Attention!

**Please keep your eyes open
for this rare bumblebee!**



© 2006 Carolyn Marks

**Bombus affinis
worker**

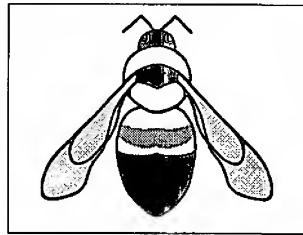
—male is similar—
Flies June to Sept.
12-16 mm long.

1st abdomen segment is yellow.

2nd segment has rust-colored patch. Also, 2nd segment is entirely yellow and rust (no black hair on rear margin).

Please look for this rare bumblebee. If you see it (or think you did), e-mail Liz Day at:

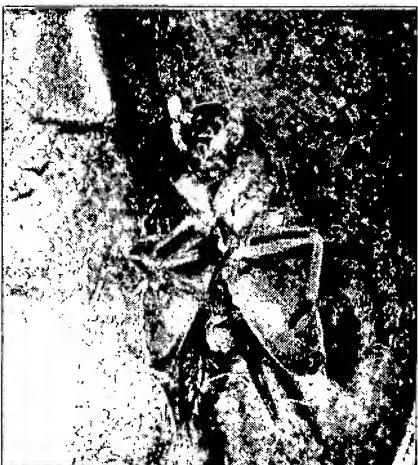
beebuzz@kiva.net



© 2006 Liz Day

It looked like half a roach blended with half a field cricket—and it

was a nymph. The insect was found in a home in Madison this past January. That is how the new State record started. A local pest control had found these jumping insects associated with a home that had an active Carpenter Ant colony in the walls. When I saw the critter I was really stumped. I tried to key it but it did not key in Stehr's *Immature Insects*. I brought the "roach with a big hind femur" to Steve Krauth at the UW-Insect Research Collection. He had no idea what the 3mm brown critter was, but it was so distinctive that it should not be that difficult. After an hour of searching, Steve found a similar critter in a Canadian publication. The little orthopteran was from the genus *Myrmecophilus* and is commonly called an Ant Cricket. Records are from the West Coast and the Southeast but we had no record of

Ant Cricket (*Myrmecophilus*)Underside of Ant Cricket
Cricket Photos: Phil Pellitteri

News from the Insect Diagnostic Lab

by Phil Pellitteri

any members of this family in the upper Midwest.

I received a digital photo of a colorful "butterfly" found in the snow on April 7 up in Vilas County. From the top it looked like an underwing, from the bottom both wings were mostly orange and could almost be an odd crescent or checkerspot. I went to Steve Krauth with a confused look again- and it turned out to be a geometrid moth, *Archearia infans*. It is a neat critter.



The Infant or First Born Moth
(*Archearia infans*)
Photo: Carolyn Scholl

The Snow Fleas were out as usual. Had one maple syrup producer have problems with them getting into his collecting equipment. We also get complaints of the early spring moths trying to steal a sweet treat in March. Also had two samples of winter Stone Flies showing up on the sides of peoples homes this late winter. They are sometimes surprised I know they live near a stream or creek. Sometimes entomology is not very hard.

The odd specimen during April was Lubber Grasshopper nymphs (*Romella microptera*) emerging from the potting soil from a plant in Manitowoc. This critter is normally found in the Southeast. Sounds like a Menard's special to me.

A number of adult female Deer Tick specimens came in during the last weeks of April. With a new record of over 1,440 human cases of Lyme Disease (in 2005) in Wisconsin,

sin, it is important to protect one's self when out enjoying our outdoor

fauna. Permethrin clothing sprays have performed very well and will kill the tick before it gets a chance to transmit. If there is no snow on the ground it is tick season. *

Phil is the District Outreach Specialist at the College of Agriculture & Life Sciences, Dept. of Entomology, UW-Madison. He is often heard answering insect questions on public radio.



Editor's Note: I have been trying to get a photo of The Infant or First Born Moth for seven years. It flies in early March in Door County and either my husband or I get one glimpse every year as it zooms, with great speed, past our line of sight. I have never come close to getting a photo of it, and it's driving us crazy.

I recently saw a beautiful photo of this moth on the BugGuide website. It was taken by John Davis of Stevenson, Washington. I asked him (in the Comments section provided on the website) what his trick was for getting the photo. He called me on the phone and said, "I was lucky." I have noticed that John Davis often finds the same moths we have, even though he's located on the west coast. A little digging revealed that we are both at the 45th parallel.

You can see his photo at:
<http://bugguide.net/node/view/45403/bgimage>

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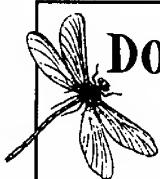
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Please make check payable to
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LES FERGE
7119 Hubbard Ave.
Middleton, WI 53562-3231



Do Dragonflies Migrate?

by Carol Czekalski

Did you know that dragonflies migrate? Well, they do—occasionally in huge masses, sometimes just in small groups, and there are others that do not migrate at all.

On September 8, 2005, in Forest Township, Fond du Lac County, at 3:30 P.M. near Mullet Lake, members of my family witnessed an absolutely phenomenal migration of dragonflies. There had to have been hundreds of thousands or perhaps millions of these beautiful insects. This mass was about a mile long. On the outer edges of the mass were some hawks and swallows enjoying a mid-afternoon snack.

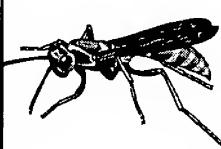
This may sound unbelievable, however, these migrations do happen. To behold such a sight is truly an awesome experience!

After an Internet search on the subject, I found this statement: "The North American Dragonfly Migration Project was conceived in 1992 as a way of studying a widespread, sometimes spectacular, but little known natural phenomenon. Like the better known migration of birds and of Monarch butterflies, long-distance migration of certain species of dragonflies occurs annually throughout much of North America. Sometimes it takes the form of spectacular mass flights that can involve hundreds of thousands, even millions of individuals. On the other hand, migrants sometimes occur at much lower density, with scattered individuals moving along parallel courses but without any aggregation. Mass flights are much easier to document, but independent movement of individual dragonflies may well be equally important."

Reference:

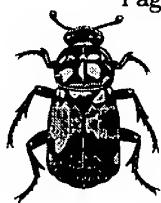
<http://vertigo.hsr1.rutgers.edu/BOB/migrant/may.txt.html>

Carol lives on a farm in Weyerhaeuser, Wisconsin. She is a member of WES and has an avid interest in the natural world around her. She has wisely instilled that interest in her six daughters, as well.



Hurrah for the Inner Life

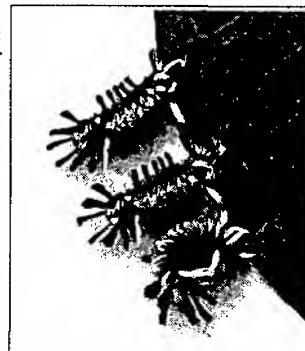
by Andrew H. Williams



I chanced to meet a coleopterist the other day. I was introduced as one who studies Milkweed fauna and the fellow immediately said, "Leps!" and made that sign of the cross with his hands that I associate with warding off vampires. Despite the eight species of beetles in my study, this fellow thought first of Lepidoptera and their apparently simple, boring lives. Beetle larvae do exhibit a fascinating diversity of adaptations to various life styles and, though the larvae of all eight Lepidoptera I study are, by preference, simple vegetarians, some of them lead complicated inner lives as hosts to a fascinating array of parasitoids. And while few Buddhists can attain complete loss of self through the inner life, these caterpillars often do so! I pointed this out to the fellow. Few Coleoptera host parasitoids, whereas a great many Lepidoptera do. Take the Milkweed Tussock Moth, *Euchaetes egle* (Drury). It is host to a wide array of parasitoids. I often get numbers of a tiny black wasp in Braconidae (up to 80) from one caterpillar. In association with these, I often get a second tiny wasp, in Ichneumonidae. A couple dozen of these may emerge from one caterpillar. Others have reported this latter species to be a hyperparasitoid of tiny braconids in other genera, so my expectation is that that is what is happening here. Several other wasps use *E. egle*. Various Tachinidae use *E. egle* as host, as well. I've reared six species of these flies from these caterpillars. Some of them are generalists but one is thought to use only *E. egle*, and a second uses only milkweed-feeding caterpillars. Usually I get one fly per host, but sometimes I get two or more of a single species. Some of these tachinids are themselves parasitized by a shiny, emerald green wasp in Pteromalidae.

I may rear a long series of caterpillars and get only moths, but a short series, or even a single caterpillar, can produce wonders. From a series of ten caterpillars collected in Sheboygan County, I reared three species of tachinids and some of these braconids. A solitary

caterpillar from Calumet County yielded two species of tachinids, the only time in my experience that this has occurred. I infrequently get the braconid and its ichneumonid hyperparasitoid and also a tachinid from one caterpillar. And, just recently, a caterpillar from Grant County yielded these three and also a pteromalid wasp from the fly's puparium.

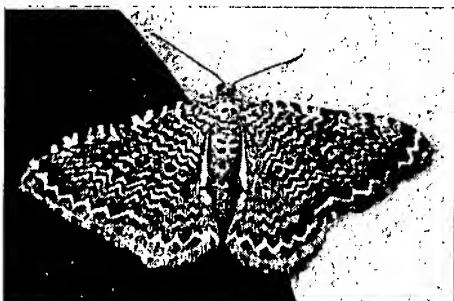


Milkweed Tussock Larvae
(*Euchaetes egle*)
Photo: Janice Stiebel

So, inside this single caterpillar, the wasp and fly parasitoids developed and each had a hyperparasitoid using it as host! Hurrah for the inner life!

Andrew is president of WES, an honorary fellow in the UW-Entomology Dept. and founder and president of Prairie Biotic Research. He does field work all over Wisconsin, with food plant specificity and parasitoidism being of great interest to him. As president of WES, Andrew would like to know what members would like the organization to do and to be. Please send any ideas to him at:

awilliam@facstaff.wisc.edu



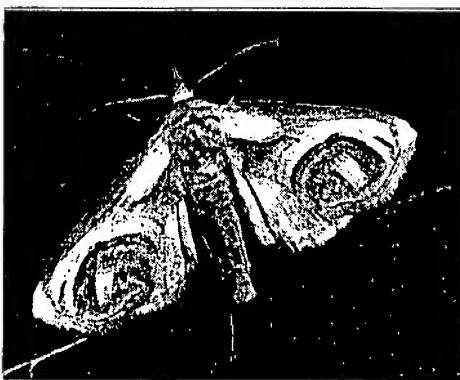
Family: Geometridae
Ferguson's Scallop Shell
(Rheumaptera prunivora)

In the classification of insects, the Lepidoptera Order comprises the butterflies and moths. With today's many books, magazine articles, TV specials, seminar speakers, and the Internet most of us are quite knowledgeable about the butterflies that float through our wildflower gardens, prairie landscapes, and woodland edges. However, the other very misunderstood and relatively unknown members of this order are the moths. Of the nearly 94,000 known species of insects in America (north of Mexico), 11,230 species belong to the Lepidoptera Order. Some species of moths are yet to be identified and may become extinct before being discovered.

Up until a few years ago, I was guilty of this ignorance, like everyone else. That was until one morning, when I observed ten beautiful, fragile, delicately light green moths clinging to the outside wall of our house, just beneath a small light that was inadvertently left on all night. When I actually took the time to really look at them, I discovered they had exquisite, rather obscure line marking on their wings. They were absolutely beautiful! It was at that moment that I decided I was going to learn the names of all future visitors to our nightlight...and the light was going to be left on every night to encourage them to come. I have often wondered why God created these beauties of the evening, when most of them would go unnoticed. Then, I discovered that many of them are visible during the day, if you make an effort to actually discern what is around you. Taking a closer look at the trees and shrubs growing close to your house, the leaves on the vegetation growing along your woodland and prairie pathways will often reveal a night-flying moth resting on the upper or under side of the leaves. Sometimes they are camouflaged

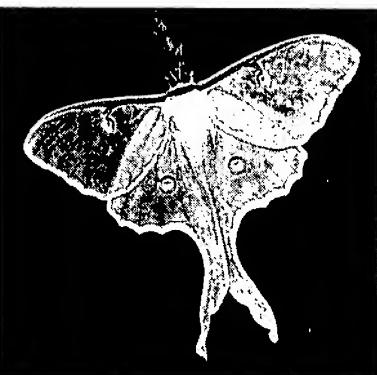
Beauties of the Evening...

The Mysterious, Misunderstood Moths
Article and Photos by Janice Stiefel



Family: Noctuidae
Eyed Paectes (*Paectes oculatrix*)

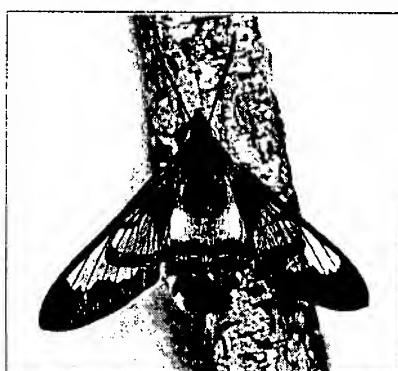
against the bark of a tree. They are all around, but most of the time are bypassed by the human eye. Left undisturbed, they frequently remain in these locations during the entire daylight hours, flying away only at dusk. Through the years, I have been privileged to have the help of Les Ferge to help with many IDs. For years, *Peterson's Field Guide to Eastern Moths* by Charles V. Covell, Jr. was the



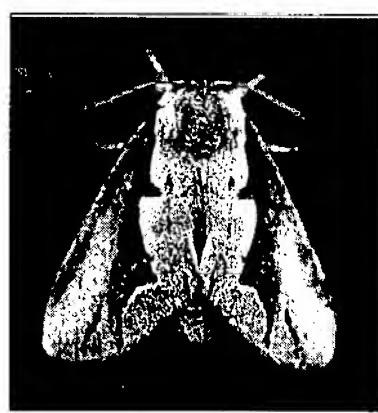
Family: Saturniidae
Luna Silkmoth (*Actias luna*)

only decent book on identifying moths. It's been out-of-print for several years, but is now available again. Caterpillar books were hard to find. Fortunately, that has changed, since the USDA Forest Service has published many beautifully-colored caterpillar books and, as far as I know, they are FREE. The Internet offers many opportunities for making IDs that were non-existent years ago. Some moths are day-fliers, but the majority are night-fliers. Their food plant requirements are quite specific and lean toward trees and shrubs, whereas the butterflies generally prefer the forbs. In the larval stage, they will eat the leaves of these plants, and in the process, they themselves provide food for many birds and animals in your yard.

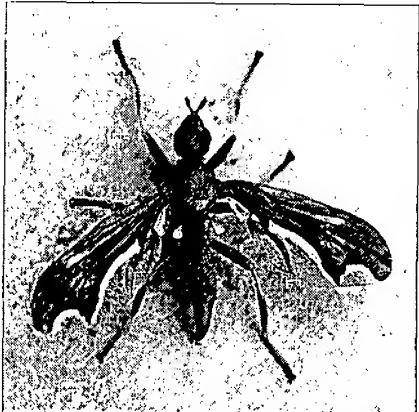
Each moth family reveals unique identifying characteristics, i.e., the way they fold their wings, their resting pose, similarity in the shape of their outline, their demeanor (docile or skittish), etc. I am sharing with you my five most favorite moths (each representing a different family). The choices were made because of their unusual markings, shapes, characteristics, or just because I like them! ☺



Family: Sphingidae
Hummingbird Clearwing
(Hemaris thysbe)



Family: Notodontidae
Double-Toothed Prominent
(Nerice bidentata)



MYSTERY INSECT

Can you identify it?

Large brown head is triangular, projecting forward. Antennae are held forward, 1st and 2nd segments are bristly. Long legs are brown. Abdomen is held with tip curled downward. Wings are mottled brown. Female has conical ovipositor with sharp point. This species is nocturnal and parasitizes nocturnal adult June Beetles. Adults emerge in 10 to 14 days.

Send answer to the editor. Winners will be announced in the next newsletter. *

Observations of Synthetic Pesticides Use

"The conventional response of dousing infested plants and soil with biocides seemed promising at first, but using technology to combat natural processes hasn't worked. Around 1948, at the start of the era of synthetic pesticides, the U.S. used about 50 million pounds of insecticides a year and lost 7% of the preharvest crop to insects. Today, with nearly 20-fold greater insecticide use—almost a billion pounds a year, two-fifths more than when Rachel Carson published *Silent Spring* in 1962—the insects get 13%, and total U.S. crop losses are 20% higher than they were before we got on the pesticide treadmill."

— Natural Capitalism
by Paul Hawken, Amory Lovins,
and L. Hunter Lovins

Ant-Plant Symbionts in Wisconsin Woods

Images and Text by Linda Curtis

My research for a book about woodland sedges led me to the Ruddy Spiny-backed Ant (*Aphaenogaster rudis*). This ant hurries-away the seed sacs of Long-stalked Sedge before other animals can get them. The sedge, a *Carex* species, has small spikes with several sacs. Each sac is a wrapper that encloses a single seed-like achene. While the sacs are small, nearly 4 mm long, the symbiont ants are not much larger, about 5 mm long.

Do the ants consume the achenes for themselves? No, there is a hungry horde of pale ant larvae in the home nest that must be fed. The ant nests are usually in rotting logs in woodlands. Each nest consists of a few hundred ants and the ants tend to move every month or so. They forage for seeds, fruits, and small invertebrates during the day and rest at night. If a foraging ant finds Long-stalked Sedge with mature sacs, it will immediately scurry back to the nest to get help. To mark the way, it leaks from its poison gland and so marks a continuous trail, ensuring that the patch of plants can be returned to at once. This is the same neuro-poison used to paralyze larger prey such as caterpillars, and so helps the horde of ants carry a rigid rather than squirming body back to the nest.

The significance of these ant "seed-snatchers" is that the seed-like achenes are barely munched on; only the outer parts are chewed off, and what is left is taken out as garbage. This "garbage" can still germinate to make new plants, whereas a bird or chipmunk would completely digest

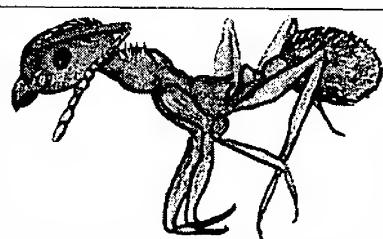
the achenes and so remove potential seedlings from their woodland environment.

This makes that ant a mutualistic symbiont of the plant because they hide the sacs away from other predators. There are other woodland plants that benefit in the same way. Because I am a "down and dirty" botanist, I have seen the same seed dispersal mutualism with

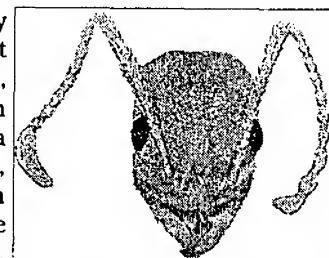
Trout Lily and Bloodroot—both spring ephemerals. For photographing low-growing plants, I often lie on the ground, knowing scout ants will check me out immediately, but the majority of ants are snatching the seeds from the plants as fast as they can.

That particular ant-dependant relationship is known as myrmecochory. As long as the achenes are not totally consumed, and the inner part with plant embryo is not damaged, they can germinate either in the nest or on the ant trash pile. As a result, rotting logs have tufts of this small grass-like sedge growing among the mosses.

The Long-stalked Sedge (*Carex pedunculata*), is a perennial and can be grown as a native substitute for Eurasian lawn grass species. The trick is to gather the seed sacs before those rude ants, *Aphaenogaster rudis*, can get them before you. *



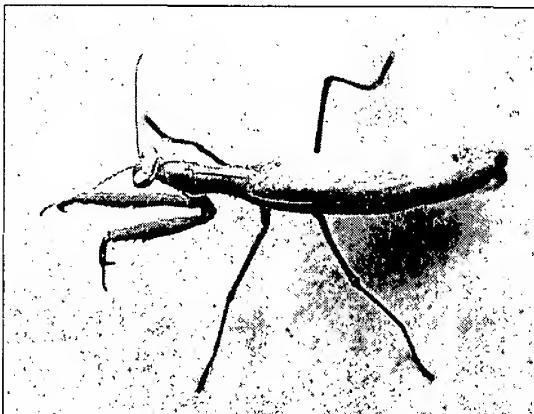
Body of Ruddy Spiny-backed Ant
(*Aphaenogaster rudis*)



Frontal view of
Ruddy Spiny-backed Ant

Linda is a WES member and a botanist who is retired from teaching, but not from writing. She apologizes for the tongue-in-cheek humor that implied "rudis" meant rude, when it really refers to a ruddy, reddish color. Her new book, *Woodland Carex of the Upper Midwest* will be published in May.

lcurtisbotanist@ameritech.net



Praying Mantis (*Mantis religiosa*)
Order: Mantodea (Mantids)
Family: Mantidae

Including wings, which extend beyond the abdominal tip, the Praying Mantis (*Mantis religiosa*) measures about 2½ in. It can be green to tan with compound, chocolate-brown eyes. The insect is harmless, except to other insects, and it can turn its head to look over its shoulder. Other names for the Praying Mantis are Devil's Rearhorses, Soothsayers, and Mulekillers (because they are believed to poison livestock in the South).

In my observation, it is an insect that appears to have personality, brains and a connection to my human world. Whenever I've held and talked to them, I had a feeling that they actually understood what I was saying. They cock their head like they are listening. My first encounter was with a specimen that was crawling on some vegetation around the house. I captured it and fed it tiny moths and flies. I also fed it a small Crane Fly, which I think attacked the Praying Mantis and caused one of its claws to be torn off. Therefore, it couldn't catch its food. Needless to say, I felt bad and all I could do was release it on a Swamp Milkweed plant that was covered with aphids. At least it had good eating for a while.

Later that afternoon, I saw an adult Monarch Butterfly down in the grasses of our meadow, appearing to be stuck on something (see photo to the right). After moving some of the grasses away, I found another Praying Mantis apparently eating an adult Monarch. There was no way I

IS IT PRAYING OR PREYING?

Article and Photos by Janice Stiefel

could play Mother Nature and save the Monarch...it was doomed. I was unhappy about that incident. I love the Monarch and the Praying Mantis, too. What a dilemma!

About a month later I found a mature Praying Mantis in our garden. After feeding it small moths and flies for several days and falling in love with it, I released it amongst the wild

flowers near our front entry. I watched my friend fly toward a group of Northern White Cedar trees about fifteen feet away. When it was half way to its destination, a female Cardinal came out of nowhere and swooped it up. Oh, no! It was gobbled up in an instant and gone! I had grown attached to its fascinating mannerisms and charming personality. Then I thought of what I had seen previously with the Praying Mantis eating the Monarch—one species has to die, so that another can live. That's one of the questions I'm going to ask God when I enter heaven. Why did something have to die, so something else could live? And He will explain that there was a larger plan being carried out. Even so, I don't like it.

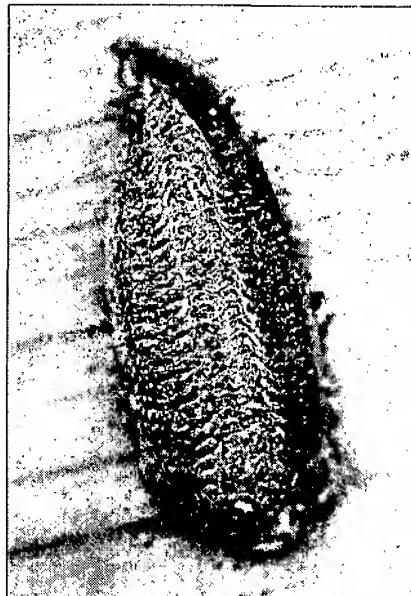
This mantid species was accidentally introduced in 1899 on

nursery stock from southern Europe. At a time when Gypsy Moth larvae were expanding in the eastern states, it was recognized almost immediately as a beneficial predator. However, it was discovered that mantids are so cannibalistic that they are rarely numerous enough to have much effect in depleting caterpillar populations. Nymphs, as well as adults, feed on aphids, beetles, bugs, leafhoppers, flies, bees, wasps, caterpillars, butterflies, and each other.

One of the favorite positions of this insect is supposed to be devout and has given them the name Praying Mantis. However, the pose does not seem to be devout and actually the Mantid is seeking what it may devour. In fact, some think the insect should be named Preying Mantid, not Praying Mantid.



Can you find the camouflaged Praying Mantis with the captured Monarch?



Praying Mantis Egg Mass

The eggs of this species are white or light brown. Their egg masses are glued to stems, twigs or pieces of wood. They hatch almost simultaneously in late spring. Nymphs are dispersed by wind or they eat one another. Survivors live a solitary life. One generation matures in late summer or early autumn. The Praying Mantis overwinters only in the egg stage. ☺

Wisconsin Entomological Society



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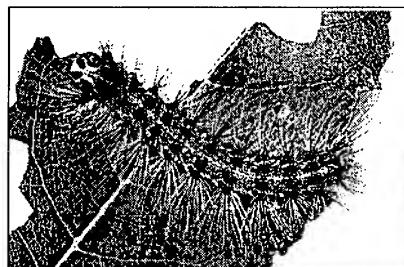
Wisconsin Entomological Society Newsletter — June 2006

Page 8

Nature's Defense

A gypsy moth larva infestation can strip the leaves from large numbers of trees, jeopardizing their lives. Since the trees don't have a means of escape, it doesn't seem as if they have much of a chance. But, botanists were tipped off to the theory that trees may not be all that defenseless when they began to investigate why only a few trees were badly damaged by insects in an infected grove, while most stood unscathed. They discovered that, when facing a threat like Gypsy Moth larvae, trees begin to defend themselves by sounding an alarm.

A large variety of trees—including beeches, poplars, sugar maples, and red oaks—communicate with each other. Scientists believe the trees communicate by releasing pheromones into the air. What they now know is that before insects attacking one tree can get to the tree next door, the

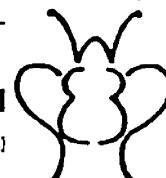


Gypsy Moth Larva (*Lymantria dispar*)
Photo: Janice Stiefel

second tree has already begun defending itself. How do they defend themselves? When under attack or given notice by other trees of attack, most trees begin to manufacture an array of poisons. Some of the poisons make leaves impossible to digest while others kill the insects outright. Some trees make as many as eight poisons at once, and many can change the poisons that are made from year to year.

References: *Discover Magazine, The Silent Battle*, Sept. 1983

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